

1 What is Claimed is:

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3 1. A capacitor network comprising:

4 a first capacitor, said first capacitor having a first
5 temperature coefficient and a first nominal capacitance, said
6 first nominal capacitance value having a first tolerance
7 range, and said first nominal capacitance value independently
8 determined;

9 a second capacitor, said second capacitor having a second
10 temperature coefficient and a second nominal capacitance, said
11 second nominal capacitance value having a second tolerance
12 range, and said second nominal capacitance value determined by
13 a design ratio between said first nominal capacitance value
14 and said second nominal capacitance value;

15 said first capacitor and said second capacitor fabricated
16 in a single package using a common dielectric material;

17 whereby said design ratio has a predetermined tolerance
18 range that is independent of said first and second tolerance
19 ranges and said first and second temperature coefficients.

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21 2. The capacitor network of claim 1, wherein said first
22 capacitor further comprises a first plurality of parallel
23 electrodes, each of said first plurality of parallel
24 electrodes separated by said common dielectric material.

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26 3. The capacitor network of claim 2, wherein said first
27 plurality of parallel electrodes are separated by a first
28 predetermined distance.

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30 4. The capacitor network of claim 1, wherein said
31 second capacitor further comprises a second plurality of
32 parallel electrodes, each of second plurality of parallel
33 electrodes separated by said common dielectric material.

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1 5. The capacitor network of claim 4, wherein said
2 second plurality of parallel electrodes are separated by a
3 second predetermined distance.
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5 6. The capacitor network of claim 1, wherein said
6 common dielectric material comprises a class one dielectric
7 material.
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9 7. The capacitor network of claim 6, wherein said class
10 one dielectric material comprises N2200 dielectric material.
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12 8. The capacitor network of claim 1, where said first
13 tolerance range further comprises a first lower limit and a
14 first upper limit, said first nominal capacitance value
15 between said first lower limit and said first upper limit, and
16 said first lower limit and said first upper limit measured as
17 a percentage of said first nominal capacitance value.
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19 9. The capacitor network of claim 1, where said second
20 tolerance range further comprises a second lower limit and a
21 second upper limit, said second nominal capacitance value
22 between said second lower limit and said second upper limit,
23 and said second lower limit and said second upper limit
24 measured as a percentage of said second nominal capacitance
25 value.
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27 10. The capacitor network of claim 1, wherein said first
28 nominal capacitance and said second nominal capacitance are
29 related by a predetermined ratio, said predetermined ratio
30 determined by dividing said second nominal capacitance by said
31 first nominal capacitance, and said second nominal capacitance
32 established by multiplying said first nominal capacitance by
33 said predetermined ratio.
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35 11. A capacitor network comprising:

1 a first capacitor, said first capacitor having a first
2 temperature coefficient and a first nominal capacitance value
3 having a first tolerance range, said first nominal capacitance
4 value independently determined, said first capacitor further
5 comprising a first plurality of parallel electrodes, each of
6 said first plurality of parallel electrodes separated by said
7 common dielectric material;

8 a second capacitor, said second capacitor having a second
9 temperature coefficient and a second nominal capacitance value
10 having a second tolerance range, said second nominal
11 capacitance value determined by a design ratio between said
12 first nominal capacitance value and said second nominal
13 capacitance value, said second capacitor further comprising a
14 second plurality of parallel electrodes, each of second
15 plurality of parallel electrodes separated by said common
16 dielectric material;

17 said first capacitor and said second capacitor fabricated
18 in a single package using a common dielectric material, said
19 common dielectric material further said common dielectric
20 material comprises a class one dielectric material.
21 comprising a class one dielectric material;

22 whereby said design ratio has a predetermined tolerance
23 range that is independent of said first and second tolerance
24 ranges and said first and second temperature coefficients.

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26 12. The capacitor network of claim 11, wherein said
27 first plurality of parallel electrodes are separated by a
28 first predetermined distance.

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30 13. The capacitor network of claim 11, wherein said
31 second plurality of parallel electrodes are separated by a
32 second predetermined distance.

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34 14. The capacitor network of claim 11, wherein said
35 class one dielectric material comprises N2200 dielectric
36 material.

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2 15. The capacitor network of claim 11, where said first
3 tolerance range further comprises a first lower limit and a
4 first upper limit, said first nominal capacitance value
5 between said first lower limit and said first upper limit, and
6 said first lower limit and said first upper limit measured as
7 a percentage of said first nominal capacitance value.

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9 16. The capacitor network of claim 11, where said second
10 tolerance range further comprises a second lower limit and a
11 second upper limit, said second nominal capacitance value
12 between said second lower limit and said second upper limit,
13 and said second lower limit and said second upper limit
14 measured as a percentage of said second nominal capacitance
15 value.

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17 17. A capacitor network comprising:

18 a first capacitor, said first capacitor having a first
19 temperature coefficient and a first nominal capacitance value
20 having a first tolerance range, said first nominal capacitance
21 value independently determined, said first capacitor further
22 comprising a first plurality of parallel electrodes, each of
23 said first plurality of parallel electrodes separated by said
24 common dielectric material, said first tolerance range further
25 comprises a first lower limit and a first upper limit, said
26 first nominal capacitance value between said first lower limit
27 and said first upper limit, and said first lower limit and
28 said first upper limit measured as a percentage of said first
29 nominal capacitance value;

30 a second capacitor, said second capacitor having a second
31 temperature coefficient and a second nominal capacitance value
32 having a second tolerance range, said second nominal
33 capacitance value determined by a design ratio between said
34 first nominal capacitance value and said second nominal
35 capacitance value, said second capacitor further comprising a
36 second plurality of parallel electrodes, each of second

1 plurality of parallel electrodes separated by said common
2 dielectric material, further comprises a second lower limit
3 and a second upper limit, said second nominal capacitance
4 value between said second lower limit and said second upper
5 limit, and said second lower limit and said second upper limit
6 measured as a percentage of said second nominal capacitance
7 value;

8 said first capacitor and said second capacitor fabricated
9 in a single package using a common dielectric material, said
10 common dielectric material further said common dielectric
11 material comprises a class one dielectric material.
12 comprising a class one dielectric material;

13 whereby said design ratio has a predetermined tolerance
14 range that is independent of said first and second tolerance
15 ranges and said first and second temperature coefficients.

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17 18. The capacitor network of claim 17, wherein said
18 first plurality of parallel electrodes are separated by a
19 first predetermined distance.

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21 19. The capacitor network of claim 17, wherein said
22 second plurality of parallel electrodes are separated by a
23 second predetermined distance.

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25 20. The capacitor network of claim 17, wherein said
26 class one dielectric material comprises N2200 dielectric
27 material.

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